REMARKS

Claims 10-14 and 17-24 are currently pending. Reconsideration of presently pending claims 10-14 and 17-24 is respectfully requested in light of the above amendments.

Rejection under 35 U.S.C. §103(a), Claims 10-14, 17, and 18-24

Claims 10-14, 17, 18-24 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Okazawa (U.S. Publication No. 2002/0034117) in view of Sharma (U.S. Publication No. 2003/0117840). Applicants traverse this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to amended claims 10, 17 and 18.

As the PTO recognizes in MPEP § 2142:

> *... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the Examiner has not factually supported a prima facie case of obviousness for the following, mutually exclusive, reasons.

1. Even when combined, the References Do Not Teach the Claimed Subject Matter

The Okazawa and Sharma references cannot be applied to reject claims 10-14, 17, 18-24 under 35 U.S.C. § 103(a), which provides that:

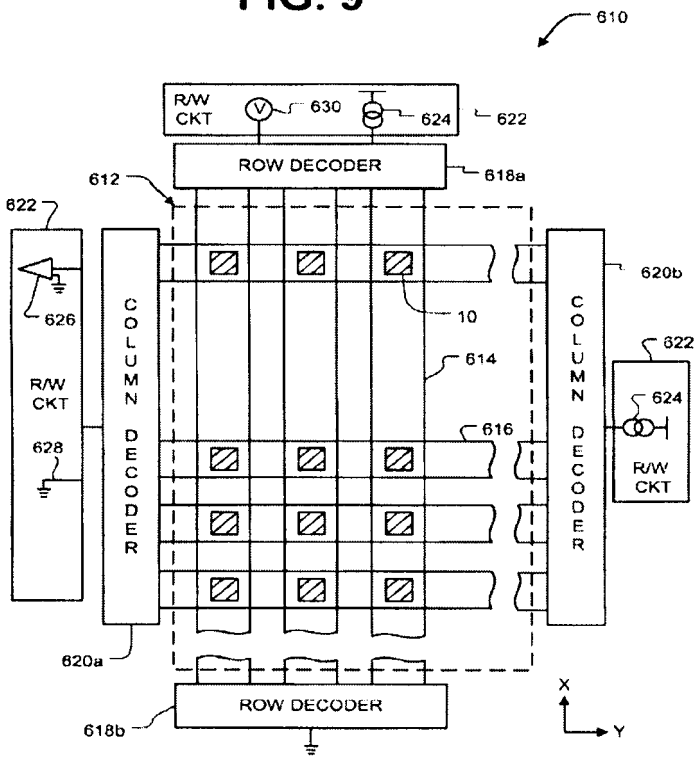
> *A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, neither Okazawa nor Sharma, either alone or in combination, discloses or suggests "first diodes, each first diode comprising a cathode and an anode coupled to

a corresponding bit line; second diodes, each second diode comprising an anode and a cathode coupled to a corresponding word line."

The Examiner admits that Okazawa is silent with respect to the provision of diodes but alleges that Sharma discloses such features in paragraph 50. In this paragraph, Sharma merely discloses that blocking devices such as diodes or transistors may be connected to magnetic tunnel junctions for blocking parasitic currents. However, Sharma does not disclose or suggest first diodes comprising a cathode and an anode coupled to a corresponding bit line, and second diodes comprising a anode and a cathode coupled to a corresponding word line. In fact, none of the figures in Sharma teaches or suggests such arrangement. The only figure that shows a magnetic tunnel junction is Fig. 9, which is shown below:

FIG. 9



As shown in Fig. 9, Sharma does not disclose or suggest that the anodes of first diodes be coupled to a bit line or that the cathodes of second diodes be coupled to a word line. Sharma merely discloses generally that diodes may be used to block currents in the cross points of the magnetic tunnel junctions 10. There is no mention of how the diodes are arranged or used in the

magnetic tunnel junctions 10, let alone first diodes comprising an anode coupled to the bit line and second diodes comprising a cathode coupled to the word line. Therefore, Sharma also does not disclose the features of claims 10, 17, and 18.

In addition, the Examiner alleges that it would have been obvious to one of ordinary skill in the art at the time of invention to apply the teachings of Sharma to the teachings of Okazawa such that the diodes are used instead of transistors for the purpose of blocking parasitic currents. Applicants respectfully disagree. Okazawa fails to mention the use of diodes in magnetic tunnel junctions. While Sharma generally discloses the use of diodes, Sharma fails to disclose first diodes comprising an anode coupled to the bit line or second diodes comprising a cathode coupled to the word line. Therefore, absent some disclosure by the Applicants, one of ordinary skill in the art would not have been led to combine or modify the teachings of Okazawa and Sharma to reach the features of claims 10, 17 and 18.

Accordingly, Applicants respectfully submit that neither Okazawa nor Sharma discloses or suggests the claim subject matter of claims 10, 17 and 18. Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 10-14, 17, 18-24 under 35 U.S.C. §103(a) should be withdrawn.

2. The Combination of References is Improper

Assuming, arguendo, that none of the above arguments for non-obviousness apply (which is clearly not the case based on the above), there is still another, mutually exclusive, and compelling reason why the Okazawa and Sharma references cannot be applied to reject claims 10-14, 17, 18-24 under 35 U.S.C. § 103(a).

§ 2142 of the MPEP also provides:

> *...the examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made.....The examiner must put aside knowledge of the applicant's disclosure,*

> *refrain from using hindsight, and consider the subject matter claimed 'as a whole'.*

Here, Okazawa and Sharma fail to disclose, or even suggest, the desirability of the combination of "first diodes, each first diode comprising a cathode and an anode coupled to a corresponding bit line; second diodes, each second diode comprising an anode and a cathode coupled to a corresponding word line." As discussed above, Okazawa fails to mention anything about the use of diodes. On the other hand, Sharma merely discloses using diodes to block parasitic currents, but fail to disclose how the diodes are connected in the magnetic tunnel junctions. Therefore, one of ordinary skill in the art would not have been led to modify or combine the disclosures of Okazawa and Sharma to include first diodes comprising a cathode and an anode coupled to a corresponding bit line, and second diodes comprising an anode and a cathode coupled to a corresponding word line, as recited in claims 10, 17, and 18.

In this context, the MPEP further provides at § 2143.01:

> *The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.*

In the above context, the courts have repeatedly held that obviousness cannot be established by combination the disclosures of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case, it is clear that the Examiner's combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claims 10, 17, and 18. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 10-14, 17, 18-24 under 35 U.S.C. §103(a) should be withdrawn.

Conclusion

It is clear from all of the foregoing that independent claims 10, 17, and 18 is in condition for allowance. Dependent claims 11-14 and 19-24 depend from and further limit independent claims 10 and 18 therefore are allowable as well. An early formal notice of allowance of claims 10-14, 17, 18-24 is requested.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

Wing Y. Mok
Registration No. 56,237

Dated: 10/12/06

HAYNES AND BOONE, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Telephone: 972/739-8626
Facsimile: 214/200-0853
Client Matter No.: 2003-0276 / 24061.163
R-146735.1

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October 12, 2006.

Diane Sutton